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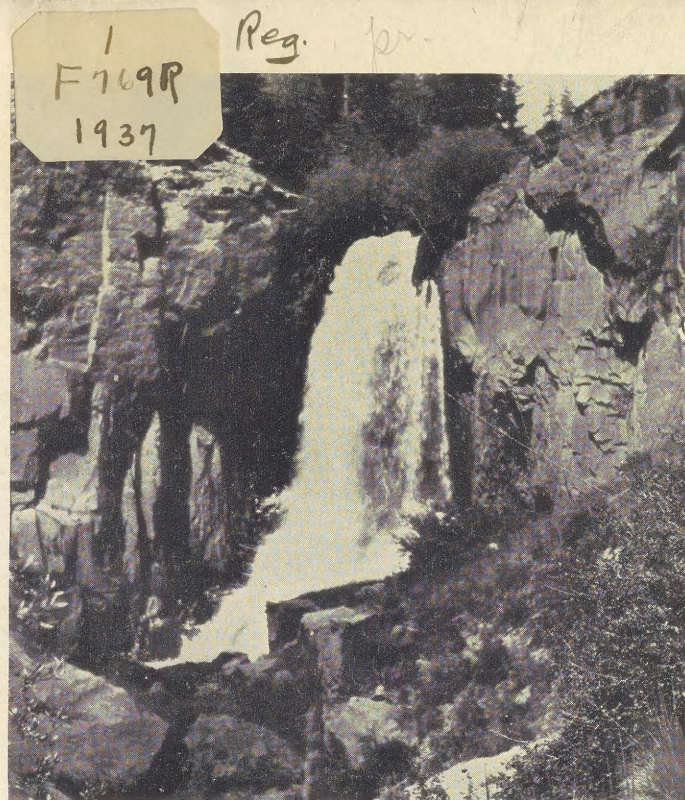
SIX RULES FOR PREVENTION OF FOREST FIRES



1. *Matches.*—Be sure your match is out. Break it in two before you throw it away.
2. *Tobacco.*—Be sure that pipe ashes and cigar or cigarette stubs are dead out before throwing them away. Never throw them in brush, leaves, or needles. Do not smoke while traveling through the woods.
3. *Making camp.*—Before building fire, scrape away all inflammable material from a spot 5 feet in diameter. Dig a hole in the center and in it build your camp fire. Keep your fire small. Never build it against trees, logs, or near brush. Where available use grates and stoves which have been provided.
4. *Breaking camp.*—Never break camp until your fire is out—DEAD OUT. USE WATER, where available.
5. *Brush burning.*—Never burn slash or brush in windy weather or while there is the slightest danger that the fire will get away.
6. *How to put out a camp fire.*—Stir the coals while soaking them with water. Turn small sticks and drench both sides. Wet ground around the fire. Be sure the last spark is dead.

RULES FOR HEALTH PROTECTION

1. *Purification.*—Mountain streams will not purify themselves in a few hundred feet. Boil or chlorinate all suspected water.
2. *Garbage.*—Burn or bury all garbage, papers, tin cans, and old clothes.
3. *Excretions.*—Bury a foot deep all human excretions at least 100 feet from streams, lakes, or springs.
4. *Washing.*—Do not wash soiled clothing, utensils, or bodies in streams, lakes, or springs. Use a container and throw used water on the ground away from the water supply.
5. *Toilets.*—Use public toilets if available. They are properly located. Toilets should be at least 100 feet from streams and not in gulches.
6. *Obeying laws.*—Observe the rules and endeavor to have others do the same. National and State laws impose heavy penalties for health-law violations. Report all violations or insanitary conditions (including dead animals) to the nearest health officer or forest officer.



SOUTH CLEAR CREEK FALLS

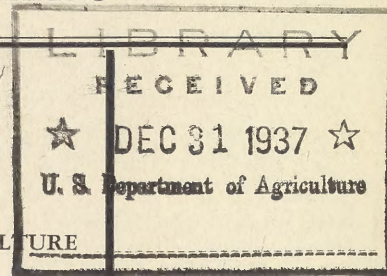
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RIO GRANDE NATIONAL FOREST

COLORADO

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ROCKY MOUNTAIN REGION

ISSUED 1937





WOLF CREEK PASS HIGHWAY ABOVE DECKER CREEK

F-271700

Early History of the Rio Grande Forest

ALONG the headwaters of the Rio Grande del Norte, "Great River of the North", lies the Rio Grande National Forest.

Except for a small area in the extreme northwest corner, which drains to the Gunnison River, the entire forest is located on the eastern slope of the Continental Divide. The crest of the divide forms the major portion of the western boundary of the forest and part of its northern limits. The La Garita Mountains also define an important portion of the northern boundary. On the east the boundary follows section lines, roughly conforming to the lower edge of the foothills; and on the south the forest terminates at the State line between Colorado and New Mexico.

The principal drainages within the forest from north to south are the Rio Grande, Alamosa, and Conejos rivers.

The Rio Grande is one of the largest of the 14 national forests in Colorado and includes within its boundaries an area of 1,221,140 acres. Of this total, 1,152,874 acres was Government land on June 30, 1936. The remainder, amounting to 68,266 acres, is State and privately owned land.

Because of its close proximity to Santa Fe, the early seat of

Spanish authority, and its topography, the Rio Grande valley is a natural avenue of approach to the interesting central mountain region of Colorado. There doubtless were earlier incursions into this territory, but the first of which there is definite record occurred in 1779 under Juan Bautista de Anza. This was a punitive expedition against the Comanches in the Green Horn Mountains. The expedition on its northern march kept to the east of the Rio Grande del Norte, and in returning to Santa Fe crossed it near the present town of Del Norte, keeping to the west of the river near the foothills.

Late in January 1807, Zebulon Pike, the famous explorer, constructed a pretentious fort on the lower Conejos River, but he and his force occupied it only for about a month, as they were forced to accede to the demands of a superior Spanish force and accompany them into Santa Fe. This area was not within the Louisiana Purchase but became a part of the United States in 1848 as a result of the war with Mexico.

The Fowler party trapped on the Conejos and south fork of the Rio Grande early in 1822. Unquestionably there were many unrecorded explorations by trappers both before and

Be Sure Your Match Is Out. Break It In Two Before You Throw It Away

after Fowler's party, and the region was relatively well known before the much later official explorations.

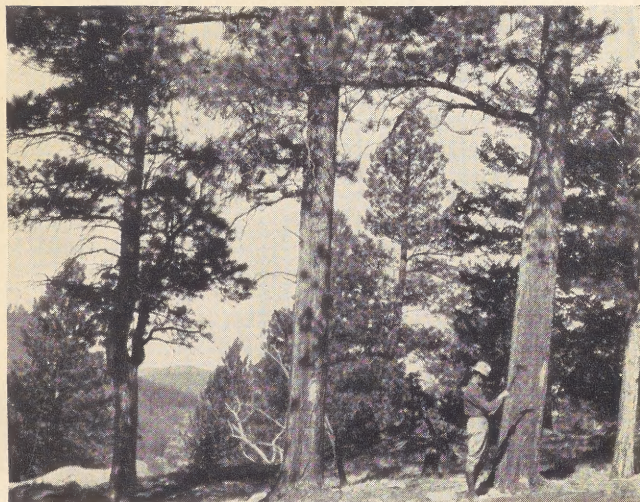
In 1842 a considerable part of the present Conejos County was deeded to Jose and Antonio Martinez, Julian Gallegos, and Seledon Valdez by the Mexican Government, to which this area then belonged. The first successful colony on this grant was established in 1854, at Guadalupe on the Conejos River just north of the present town of Antonito.

Stony Pass, between the head of the Rio Grande and Silverton (originally called Baker's Park), was first traversed by wagons in 1861 or 1862 when Jim Baker, who had led a prospecting party to the San Juan Basin from the Gregory Diggings (Central City), was warned by the Ute Indians to leave. The party escaped into the San Luis Valley after great hardships. One of the numerous stories regarding the naming of Wagon Wheel Gap is based on the tradition that a wheel from one of Baker's wagons was found there by later travelers.

Gold was discovered in the San Juan Mountains in 1870. The next year there was a rush to that remote corner of the territory. Prior to this time, settlement in the Rio Grande Valley was almost entirely by people of Spanish and Mexican extractions who came from old Mexico.

New towns grew up in the valley to meet the need for outfitting points and way-stations on the road to the San Juan mines. Del Norte, established in 1872, served as a wintering place for the miners of the Summit district. Towns and ranches in the San Luis Valley and mines in the San Juan Mountains brought in the railroad. The track was laid across La Veta Pass and down the San Luis Valley in 1877-78.

The coming of the railroad, of course, stimulated settlement. The town of Alamosa was started upon the arrival of the railroad in 1878. Monte Vista was settled in 1882 as the town of Henry and incorporated under its present name in 1884.



ON A NATIONAL FOREST THE FIRST STEP IN MARKETING TIMBER IS
THE MARKING OF THE TREE FOR REMOVAL

TOPOGRAPHY OF THE LAND

The major portion of the forest lies in the drainage of the Rio Grande del Norte proper, within a horseshoe-shaped area made by the Continental Divide and the La Garita Mountains. The San Juan Mountain range on the west, a part of the Continental Divide, is particularly rugged and formidable with many peaks rising well above 13,000 feet.

Rio Grande Pyramid, the highest point on the forest, has an elevation of 13,820 feet. In spite of its average high elevation, this country has few natural barriers to horseback travel, and the traveler can ride almost anywhere over man-made trails or natural routes of travel.

Mountains which form the north boundary from Jarosa Mesa east to Bowers Peak assume more of the characteristics of a high plateau, in many places dissected by deep canyons.

Southwest of Monte Vista, at the culmination of a spur from the divide, Bennett Peak (13,189 feet) is a prominent landmark. This is an extinct volcano with a well-defined crater.

The Alamosa and Conejos drainages are much smaller than that of the Rio Grande del Norte. They have relatively short and narrow basins, precipitous at their heads, along the Continental Divide, but in their lower reaches the fall is rather gentle for mountain streams.

HOW TO REACH THE FOREST

The Rio Grande National Forest may be reached by railroad or automobile highways. A narrow-gage rail line, which runs from Antonito to Durango, climbs through the forest to Cumbres Pass on the summit of the divide. A broad-gage line extends up the Rio Grande as far as the mining town of Creede. Three important trunk automobile highways also traverse the forest. The Wolf Creek Pass Highway (U S 160) and the South Fork-Lake City Highway (Colorado 149) divide just above the small town of South Fork, the former going up the south fork of the Rio Grande to the pass from which it gets its local name and continuing down the western slope to Pagosa Springs and points beyond. The latter goes up the main, or north, fork of the Rio Grande through the town of Creede and across the Continental Divide at Spring Creek Pass and down to Lake City. The Cumbres Pass Highway (U. S. 285) runs up the Conejos River and Cumbres Creek to the pass of the same name, and then leaves the forest a few miles west of the summit. A number of branch roads connect the main highways with various parts of the interior of the forest.

Much of the more rugged portion of the forest can be reached only by trails which form a network over the more inaccessible areas.



"QUAKING" ASPEN OR "QUAKERS"

F-228237

PURPOSES OF THE FOREST

The Rio Grande is one of about 160 national forests in the United States which are located in 37 different States and Territories, including Alaska and Puerto Rico. They contain approximately 170,000,000 acres of public lands, and are administered by the Forest Service, United States Department of Agriculture. The area within the present Rio Grande National Forest was set aside out of public lands in 1905 and 1907.

Purposes of the national forests are to grow timber to supply the Nation's needs; to preserve an adequate vegetative cover which helps to regulate the flow of streams, retards excessive run-off, and prevents erosion; and, so far as is consistent with the best uses of all of the forest resources, to make them available in the ways of greatest service. Conservation, with use, is the keynote in national-forest management. The forests are valuable public property, to be developed, protected, and used in perpetuity for the benefit of all citizens.

HOW TIMBER IS MANAGED

The Rio Grande National Forest contains extensive timber resources. The total volume of merchantable timber is estimated to be 3,224,029,000 feet board measure of saw timber. Engelmann spruce is the most important tree species found on

the forest; and, with lesser amounts of corkbark, alpine, and white fir, it makes up 95 percent of the total timber stand, and constitutes a valuable potential pulpwood supply. Douglas fir, ponderosa pine, limber pine, bristlecone pine, and blue spruce also occur and make up the balance of the merchantable forest.

Mature timber may be purchased from national forests. All timber sold is cut in accordance with timber-management plans worked out by trained foresters, with the object of perpetuating the forest cover and producing the maximum yield. Mature, defective, diseased, or overcrowded trees, which are making little or no growth, are the ones selected for cutting. Removing such trees promotes better growth in the remaining stand. Such selective cutting removes from 50 to 75 percent of the volume of virgin stands and leaves thrifty young trees properly spaced. At the proper time the stand can again be cut over, and the forest land thus kept constantly in a productive condition.

The timber resources of the Rio Grande Forest have been only slightly developed; the annual cut is but a small fraction of the annual growth.

Lumbering in the national forests is carried on by private persons or companies. All timber to be sold is appraised, advertised, and sold to the highest bidder. The money from such sales, and from grazing and other uses of the forest, is paid into the National Treasury, but 25 percent is returned to the counties in which the national forests are located, in lieu of taxes, to be used for either school or road purposes. An additional 10 percent of receipts is made available to the Forest Service for the construction and maintenance of roads and trails. These funds are in addition to regular appropriations made by Congress for like purposes.

TREES OF THE RIO GRANDE

Conifers

PINES: Four species. The Rio Grande pines have their needles gathered together at the base in bundles of from two to five. The cones are woody and pendant.

Limber pine (*Pinus flexilis*).—Fine, almost silky, dark-green needles, 1½ to 3 inches long, always in bundles of five. Cones, 3 to 5 inches long, with seeds about one-third inch in length. Cone scales smooth. Bark, light gray, except on old trunks, which are blackish brown and furrowed.

Bristlecone pine (*Pinus aristata*).—Needles, five in a bundle, about 1 to 1½ inches long; almost always covered with tiny specks of pitch. Cones with long, slender, sharp bristles on the tips of the scales which give the tree its name.

Ponderosa pine (*Pinus ponderosa*).—This tree was formerly known as western yellow pine. Needles, 3 to 7 inches long, deep green, usually three in a cluster, but often in

twos and in tufts at the ends of the branches. Cones, 3 to 5 inches long, oval shaped. Cone scales armed with spines. When young the bark is dark, and the tree is known as "black jack" or "bull" pine. When older, the bark is yellowish and occurs in thick scaly ridges.

Pinon or pinon pine (*Pinus edulis*).—Pinon is a short, scrubby tree, often growing in mixture with juniper, and is confined to the foothills. Needles usually in bundles of two, rarely three, $\frac{7}{8}$ to $1\frac{3}{4}$ inches long. Cones, $1\frac{1}{2}$ inches long and almost as broad, containing large seeds, which are the pinon nuts of commerce.

SPRUCES: Two species. Needles scattered over the twigs singly. Needles are sharp-pointed, four-sided, leaving twigs rough like a grater when they fall off. Cones, pendant, with parchment-like scales, falling off the tree whole.

Engelmann spruce (*Picea engelmannii*).—The new-growth twigs are covered with soft, short hairs. Needles less rigid and less sharply pointed than those of blue spruce; green, dark blue, or pale steel-blue. Cones, 1 to 2 inches long. Bark is dark reddish-brown and separates in the form of small rounded scales. Main trunk, in contrast to blue spruce, is smooth and clean.

Blue spruce (*Picea pungens*).—The new-growth twigs are always smooth. Needles, stiff with sharp points, varying in color from silvery blue to green. Cones, from $2\frac{1}{2}$ to 4 inches long, averaging twice the length of Engelmann spruce cones. Bark of mature trunks, gray and deeply furrowed. Main trunk always has numerous short twigs pushing out between branches.

FIRS: Three species. Needles blunt, flat, and soft to touch, without any stem where they join branches. Needles leave flat, round scars when they fall off, in contrast to short stubs left by spruce needles on twigs. Cones, unlike those of other species, stand erect. In the fall, the cones fall to pieces and leave only a spike on the branch. Buds, blunt and pitchy. Blisters, containing liquid pitch or balsam, are scattered over the smoother bark.

Alpine fir (*Abies lasiocarpa*).—Flat needles, 1 to $1\frac{3}{4}$ inches long, without any stem where they join branches. Cones, $2\frac{1}{4}$ to 4 inches long, dark purple. Bark, gray and smooth, except on older part of the trunk, where it is broken into ridges. Tree has a sharp, spire-like crown. Grows at high altitudes, usually with Engelmann spruce.

Corkbark fir (*Abies arizonica*).—The trunk, crown, cones, and needles of the corkbark and alpine fir are so alike in general appearance that the two cannot be readily distinguished by these features. The cone scales of the corkbark fir are of a different form from those of the alpine,



F-228194

EXCELLENT SUMMER RANGE FOR SAN LUIS VALLEY HERDS



F-221156

A CONTENTED HERD ON LUXURIANT SUMMER FEED



F-25159A

GROUSE FIND PROTECTION IN THE ASPEN



RIO GRANDE NATIONAL FOREST
COLORADO
NEW MEXICO PRINCIPAL MERIDIAN
1937

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R. A. SALOON, CHIEF
T. W. NORCROSS, CHIEF, DIVISION OF ENGINEERING

Scale 1 2 3 4 Miles

- LEGEND
- National Forest Boundary
 - Adjacent National Forest Boundary
 - Main Motor Highway
 - Good Motor Road
 - Passable Motor Road
 - U. S. Highway Number
 - Trail
 - Railroad
 - Camp Ground
 - Supervisor's Headquarters
 - District Ranger Station
 - Guard or Ranger Station (Not permanently occupied)
 - House, Cabin or other building
 - Game Refuge Boundary
 - Primitive Area
 - Airport
 - Sawmill
 - Fire Tool Cache
 - Mine

TABLE OF DISTANCES	ALAMOSA	ANTONITO	CENTER	CHAMA, N. MEX.	CREEDE	DURANGE	GUNNISON	LA JARA	LAKE CITY	MONTA VISTA	PAGOSA SPRS.	PLATON	SAGUACHE	SALIDA	SOUTH FORK	SUMMITVILLE	WALSBERG	
ALAMOSA		30	28	81	70	33	182	118	14	117	18	97	55	51	86	48	45	77
ANTONITO	30		57	52	101	63	167	148	15	46	46	102	61	80	119	77	55	106
CENTER	28	57		109	53	15	144	89	44	100	11	78	55	23	71	30	60	105
CHAMA, N. MEX.	81	52	109		119	113	156	167	98	98	50	113	132	186	126	107	159	
CREEDE	70	101	53	119		36	137	132	86	58	53	71	97	76	124	23	102	147
DEL NORTE	33	63	15	113	36		129	100	48	95	15	63	59	38	86	15	30	110
DURANGE	182	167	144	15	137	129		160	177	144	44	66	188	167	215	114	193	238
GUNNISON	118	148	89	196	132	100	160		33	55	100	178	144	67	75	130	144	195
LA JARA	14	15	44	67	86	48	177	133		143	33	111	46	66	100	63	40	91
LAKE CITY	117	146	100	196	58	95	194	55	143		110	129	154	128	80	159	209	
MONTA VISTA	16	46	11	98	53	15	144	100	33	110		78	44	34	62	30	49	94
PAGOSA SPRS.	97	102	78	50	71	63	66	178	111	129	78		122	112	160	48	127	172
PLATON	55	61	55	113	97	99	188	144	46	154	44	122		77	126	74	16	132
SAGUACHE	51	80	23	132	76	38	167	67	66	128	34	112	77		46	53	82	128
SALIDA	86	119	71	168	124	86	215	75	100	128	82	160	126	46		101	131	153
SOUTH FORK	46	77	30	126	23	15	114	130	63	60	30	48	74	53	101		45	123
SUMMITVILLE	45	55	60	107	102	30	193	144	40	159	49	127	16	82	131	45		122
WALSBERG	77	106	105	159	147	110	238	195	91	209	94	172	132	128	153	125	122	

* VIA WOLF CREEK PASS

PREVENT FOREST FIRES — IT PAYS

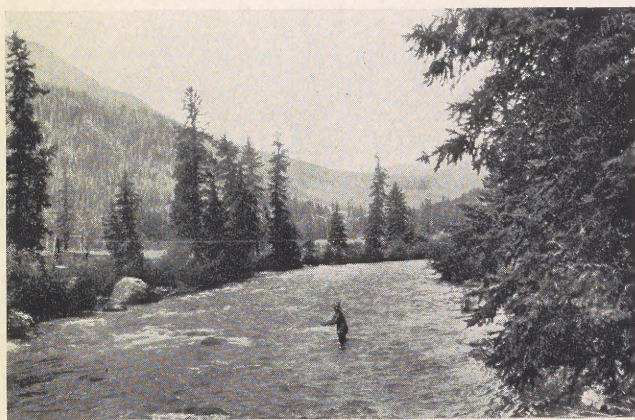
Compiled by H. L. Byrnes and F. E. Washburn.
Drawn by H. L. Byrnes, Denver, Colorado, 1937.





F-26153A

UNDER PROTECTION ELK ARE INCREASING



F-228280

FISHING IN THE RIO GRANDE

and the bracts borne on the backs of the scales also differ materially in form. The ashy-gray, soft, corky trunk bark alone readily distinguishes this tree from the alpine fir.

White fir (*Abies concolor*).—Needles longer and coarser than those of alpine fir, often 2 inches or more long. Grows only at lower altitudes, often with ponderosa pine and Douglas fir. Cones usually dark purple, sometimes grayish-green. Bark becomes quite thick on old trunks near the ground, deeply divided into broad, rounded ridges broken on the surface into irregular shaped plate-like scales.

DOUGLAS FIR: (*Pseudotsuga taxifolia*).—Though similar in name, this species has no direct connection with the true fir. Flat leaves $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, with a short stem that joins them to the branches. Cones with three-pronged bracts between the cone scales. Cones persistent, falling off the tree whole. Buds smooth, red-brown, shiny, and sharp pointed.

JUNIPERS OR CEDARS: Two species. Cones reduced to small, bluish berries, needles reduced to tiny green scales

closely attached to the twigs, though sometimes spreading and about $\frac{1}{2}$ inch long, making twigs very prickly to the touch.

Rocky Mountain Red cedar (*Juniperus scopulorum*).—Berries, about the size of small peas, bluish or black, usually with two seeds. Berries mature in 2 years. Bark scaly, twigs slender and graceful, heartwood red.

One-seed juniper (*Juniperus monosperma*).—Berries small, mostly less than $\frac{1}{4}$ inch in diameter, usually contain only one seed; they are covered with a bluish bloom which may be rubbed off, exposing the true reddish or coppery color. Berries mature in one year. Twigs stiff and stout. Heartwood brown.

BROADLEAF TREES

ASPEN (*Populus tremuloides*).—Commonly called "quaking aspen" or "quakers." Flat, nearly heart-shaped leaves, about 2 inches across, that tremble characteristically in a breeze. Bark whitish or very pale green; smooth, with black scars where branches have dropped off. Trees rarely more than 60 feet high.

NARROWLEAF COTTONWOOD (*Populus angustifolia*).—Usually a tall tree, 40 to 60 feet high. Bark dark gray, heavily ridged half or two-thirds of the way up the tree; above that, smooth pale green. Leaves, $\frac{1}{4}$ to 1 inch wide and 2 or 3 inches long; very similar to willow leaves. Usually found along streams at lower elevations.

ALDER (*Alnus tenuifolia*).—Found along and overhanging the streams, usually in clumps, several trees growing from the same root, frequently 4 to 6 inches in diameter and 15 to 25 feet high. Leaves, large and sharply double toothed. Mature seed-bearing fruit noticeable in winter.

WILLOWS (*Salix* sp.).—The common shrub of creek bottoms. Usually narrow, sharp-pointed leaves. Some willows attain a diameter of 4 inches and a height of 15 to 25 feet. Buds are covered by a single scale.

WESTERN CHOKE CHERRY (*Prunus demissa*).—Clustered flowers and fruit; alternate leaves sharply pointed. Bark, leaves, and seed bitter. Fruit, black. Tree, or more often a shrub, 3 to 15 feet high.

VALUE OF THE WATERSHED

Irrigation is the keystone of prosperity in the San Luis Valley. Most of the water so used comes from the Rio Grande National Forest. Welfare of a large territory in the southwestern United States and northern Mexico far beyond the limits of the forest also depends upon the waters of the Rio Grande del Norte. All of the headwaters of this river are within the forest.

GRAZING FOR LIVESTOCK

The Rio Grande National Forest furnishes summer grazing for approximately 14,250 cattle and horses and 154,000 sheep. Each owner's stock grazes on definitely assigned grazing allotments.

The efficient handling of the summer range is in itself a large enterprise. The range must be used to the fullest extent, and at the same time its future capacity must not be endangered by overgrazing. Neither must grazing be allowed to injure forest reproduction. The herbaceous plant cover—grasses and weeds as well as tree growth—exerts a marked beneficial influence in retarding surface run-off and in preventing soil erosion. It is the aim in grazing administration to maintain a surface cover of vegetation and at the same time provide a reasonable supply of forage for livestock. Protective value of the vegetative cover is thus maintained, and the forage crop serves an important economic need.

Improvements that are means of better range management—construction of drift fences, stock trails, and water developments and eradication of larkspur—are usually made by the Forest Service. Improvements that are more for convenience than for better range management are built by the stockmen concerned.

WILDLIFE AND FISH

Deer, elk, mountain sheep, bears, lions, bobcats, blue and willow grouse, ptarmigan, ducks, and other kinds of game are to be found on the Rio Grande National Forest. There are also large numbers of such fur-bearing animals as beaver, mink, marten, fox, muskrat, badger, and weasel.

It is the policy of the Forest Service to reserve adequate range for the wildlife, much of which is a distinct asset in mountain country. The game animals naturally use parts of the forest which cannot be used efficiently for domestic stock.

Mountain lions and bobcats, as well as other predatory animals, are kept from becoming a menace through trapping and hunting. State laws give certain protection to deer, elk, grouse, ducks, and other game, permitting hunting only during a specified open season. Mountain sheep are protected the year round. No hunting of game is permitted without a State license.

The Rio Grande National Forest is noted for its fishing. There are over 600 miles of trout streams, two of the most famous of which are the Rio Grande del Norte and the Conejos. There are also numerous small lakes scattered throughout the alpine sections, high up on the Continental Divide, which afford excellent sport. Some of the larger irrigation reservoirs are also stocked and open to fishing.



F-281039
CAMPGROUND ON NATIONAL FOREST



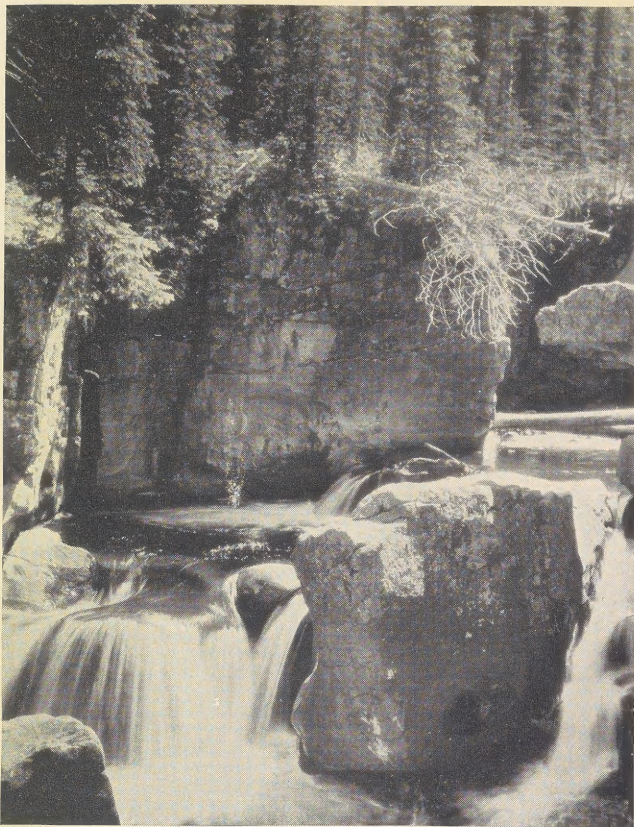
F-28245
A SUMMER HOME IN THE FOREST

Heavily fished streams are stocked each year with young trout grown at State and Federal hatcheries. The Forest Service cooperates with the Bureau of Fisheries and the State in the distribution of young trout under agreed plans. Native, eastern brook, rainbow, and Lochleven trout are found in the streams and lakes of the region.

Prior to 1937, eight retaining ponds for fish were constructed. These ponds permit the retention of small fry in safe waters until they are large enough to shift for themselves. Small fish placed directly in streams are subject to heavy losses, and the retaining-pond method of fish culture has come to be recognized as the most efficient way of building up fishing resources.

RECREATION FACILITIES

The Rio Grande National Forest is extensively used by local residents for picnicking, fishing, and hunting; and, in addition, there is a growing recreational use by people who motor in



F-228254

BOX CANYON ON THE SOUTH FORK OF THE RIO GRANDE

over the three main automobile highways which lead into the region.

Numerous hotels, resorts, and cabin camps in the towns adjacent to, or within the forest, offer accommodations to visitors who do not have their own camping equipment. Saddle and pack horses for trips into the more inaccessible and remote portions of the forest may be obtained in a number of places.

Well-equipped roadside campgrounds have been provided by the Forest Service at attractive and convenient locations for the convenience of visitors. The primary purpose of these campgrounds is to lessen the risk of disastrous forest fires. They are in perfect harmony with their surroundings and have developed water supplies, fire grates, tables, toilets, facilities for garbage disposal, and in many cases are fenced against livestock.

SITES FOR SUMMER HOMES

Summer-home lots on desirable sites have been surveyed and designated for use by those who wish a more permanent form of summer residence than a transient tent. These may be leased for a nominal fee, ranging from \$15 to \$25 a year for a lot, according to use, location, and desirability. Maps, descriptions,

and full information concerning them may be obtained at the office of the forest supervisor at Monte Vista, Colo.

PRIMITIVE FOREST AREAS

The entire watersheds of Ute, Weminuche, Big Squaw, and Little Squaw Creeks, located near the headwaters of the Rio Grande del Norte, have been set aside as the Upper Rio Grande Primitive Area. It contains 56,600 acres contiguous to the San Juan Primitive Area on the west, and with the latter makes an area of almost 300,000 acres of alpine beauty and ruggedness.

This area is essentially a wilderness, untouched by man, except for the construction of the barest necessities in the way of protective and administrative improvements. The unit has no automobile roads within its boundaries, and none will be built. The only practical means of access is by trail with saddle horse and pack outfit. Its designation as a primitive area means that it will remain as nearly as possible in its natural condition, unmarred by the presence of summer homes, resorts, and modern conveniences.

WHEELER NATIONAL MONUMENT

The Wheeler National Monument, a grotesquely eroded geological feature within the Rio Grande National Forest, has been set aside by Presidential proclamation and named in honor of George Wheeler, United States engineer. The area is administered by the National Park Service.

It is probable that this strange formation is the result of a succession of outpourings of lava and showers of volcanic ash, which have left a series of nearly horizontal strata of varying degrees of hardness. The harder, broken rocks embedded in these strata have acted as chisels, greatly accelerating erosive action and making the lines and angles much more sharply defined than would be the case in ordinary weathering. Erosion is still going on at a remarkably rapid rate, making the place one of great interest from a geological point of view.

The area may be reached by saddle horse from Creede over a Forest Service trail 12 miles in length. The route leads across the face of Mammoth Mountain (11,042 feet) and gives a superb view of the upper Rio Grande country and of Creede, with its adjacent mining activities.

MINING DEVELOPMENT

Within the Rio Grande National Forest are two important mining centers, Summitville and Creede. "It was day all day in the daytime and there was no night in Creede", suggests a typical picture of the early rough, roaring mining town. Now quieter, and with their production somewhat reduced from

their heyday, both camps continue to add to their rich yields of ore.

The ore deposits around Summitville, while smaller and with less production, were discovered some 20 years earlier than the Creede district. Total mineral production of Rio Grande County, almost all of which has come from the Summitville district from 1870 to the close of 1936, has been \$3,892,617. Except for inconsequential values in silver, copper, and lead, this production has been almost entirely gold, that precious metal representing almost 94 percent of the values.

The Creede mining district, on the other hand, has been chiefly a silver camp. That metal accounts for more than 70 percent of the ore value, with lead—a metal with which silver is commonly associated—representing 20 percent more. Gold production has been slightly in excess of 6 percent of the total values, with small quantities of zinc and copper making up the remainder. The total value of ores produced from 1891 to the close of 1936 is \$45,135,283, according to figures released by the United States Bureau of Mines. The Holy Moses mine was located in August 1889, and in June 1891 the Last Chance deposit and later the Amethyst deposit were discovered. The last two named are reputedly the largest producers in the history of the camp. Production from mines still continues—output for 1936 was in excess of \$343,000, represented almost exclusively by silver.

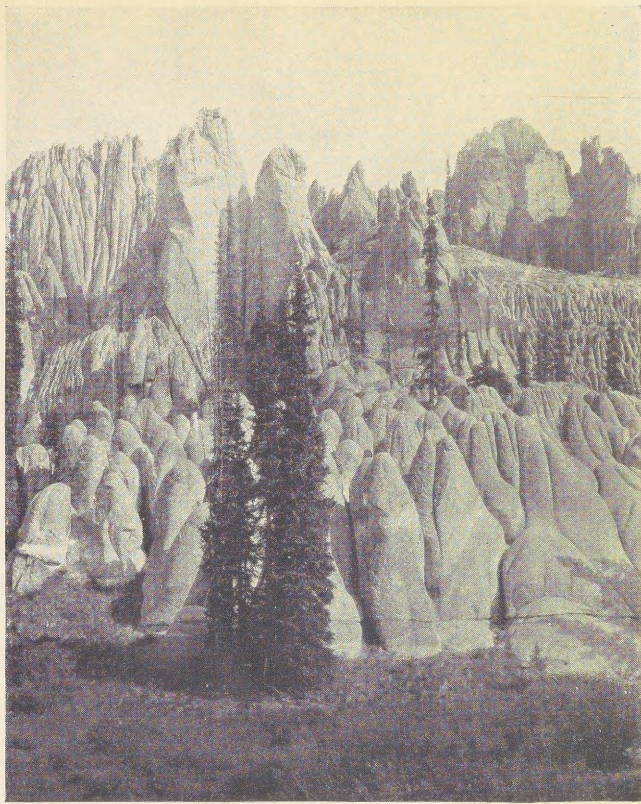
YOUR FOREST, YOUR LOSS

Many places within the forest boundaries show scars of destructive forest fires which burned years ago. The southern section of the forest, particularly the foothill type on the Conejos and Alamosa River drainages, have been repeatedly burned so that little coniferous timber remains, the forest consisting principally of aspen.

As a result of organized protection, only 1,229 acres of Government land has been burned over in the 28-year period from 1909 to 1936, inclusive. This is an average annual fire loss of only 42 acres. The worst fire year was in 1917, when 421 acres were burned. Without the prompt action of local citizens and forest officers, however, the acreage burned and damage sustained would unquestionably have been very much larger.

Fire is unquestionably the most destructive enemy of the forests. A lighted match, cigarette, or cigar carelessly tossed aside, or a campfire left burning, may result in a disastrous forest fire, and the destruction of a forest cover of great direct and indirect value.

Most of the fires in the Rio Grande National Forest have been caused by carelessness. People who visit the forests for



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"PARADE OF THE GHOSTS", WHEELER NATIONAL MONUMENT

camping, picnicking, fishing, or other forms of recreation and use fire in any form are urged to exercise the greatest care with it and to follow carefully the "Six Rules for Prevention of Forest Fires" printed elsewhere in this folder.

OFFICERS' HEADQUARTERS

The Rio Grande National Forest is divided into six districts, each of which is administered by a forest ranger under the general direction of the forest supervisor. Any of the forest officers in the following list will be glad to answer inquiries regarding the resources of the forest, places of special interest, or their everyday work:

- Forest Supervisor, U. S. Forest Service, Monte Vista, Colo.
- Forest Ranger, Alder District, South Fork, Colo.
- Forest Ranger, Conejos District, Antonito, Colo.
- Forest Ranger, Creede District, Creede, Colo.
- Forest Ranger, Del Norte District, Monte Vista, Colo.
- Forest Ranger, Pyramid District, Creede, Colo.
- Forest Ranger, South Fork District, South Fork, Colo.



OLD DRY GULCH BURN NEAR CREDE

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It Is Yours to Enjoy—And to Protect!

You who are visitors in the Rio Grande National Forest will be impressed with its natural beauty. It is yours to enjoy—and to protect.

You who come to get into the great outdoors will find the forest offers an outing that is natural and different. Campers, sportsmen, and those who seek health and rest find recreation in the Rio Grande to be simple, democratic, unregimented, just as it is in all the national forests. Recreation facilities for the many take precedence always over those for the few. Policing is kept to that minimum which is necessary to assure safety to public health and public property. All who enjoy the out-of-doors will be delighted with the rugged mountains and wandering streams, the frontier flavor of the forest wilderness, the murmur of rushing rivers or waterfalls, the beauty of placid lakes, and the scent of pine, spruce, and fir.

After you have been through the Rio Grande you may want to visit one of the other national forests. The forest officers will bid you welcome. The increasing use of the forests for recreation purposes is in line with the policy of managing these areas for multiple uses. More than 71,000,000 persons passed through the national forests in 1936 compared to only about 3,000,000 in 1917, the figures, of course, including "repeaters."

As a result of this popularity, the national forests are frequently called the "Playgrounds of America."

Within the national forests are found ancient cliff dwellings, pueblo ruins, prehistoric rock paintings, unique topographic or geologic features, historic landmarks, groves of rare trees, and other objects of historic and scientific interest that have been set aside as national monuments. Among these are the Gila Cliff Dwellings in New Mexico, Big Hole Battlefield in Montana, Timpanogos Cave in Utah, Chiricahua, Tonto, and Walnut Canyon monuments in Arizona, the Devil Postpile in California, Lehman Caves in Nevada, Mount Olympus in Washington, Oregon Caves in Oregon, and the Wheeler National Monument in Colorado. Mount Whitney, the highest peak in continental United States, and Mount Shasta in California, Mount Hood in Oregon, Mount Ranier in Washington, Pike's Peak in Colorado, and other well known snow-clad peaks of the West, lie mainly within the national forests.

Each visitor in these forests has a stake in their protection. The officers are the managers for the people who have title to these properties through their Government. All they ask is that you who are visitors observe "good forest manners."

Those Who Follow You Will Appreciate Your Clean Camp